

REMARKS/ARGUMENTS

Claims 1-38 remain in the application. Claims 39-40 are cancelled by this response. Claims 1, 7, 14 and 25 are amended to more distinctly describe the subject matter of the claimed invention.

A. Drawings.

Formal drawings are submitted with this response. Although the drawings include modifications with respect to margins and text size to comply with the drawing standards, they are not otherwise amended.

B. Claim Objections.

The cancellation of claims 39-40 and the amendment to claim 7 are believed to overcome the objections noted in the office action.

C. Rejections under 35 U.S.C. 101.

Claims 1-38 were rejected under 35 U.S.C. 101 as directed to non-statutory subject matter. This rejection is respectfully traversed.

As the Office action notes, 35 U.S.C. 101 prohibits claims directed to processes that merely manipulate an abstract idea unless the claims are limited to a practical application. While the claims were believed to recite statutory subject matter as filed, the amendments clarify that the digital sequence being processed by the method of claims 1 and 14 is provided in a computing device, and that the claimed process transforms the digital sequence to produce a probabilistically unique identifier *from the digital sequence*. These features make it clear that the invention of claims 1 and 14 is not merely an abstract idea, but is a method that transforms data. It is respectfully requested that the rejection under 35 U.S.C. 101 be withdrawn.

Claim 25 is believed to be in the format approved as statutory subject matter according to the Patent Office Examination Guidelines for Computer-Related Inventions. The guidelines state "...when a computer program is recited in conjunction with a physical structure, such as a computer memory, Office

personnel should treat the claim as a product claim.” See Section IV.B.1(a). Claim 25 calls for a computer program product in conjunction with physical structure and should not be treated as non-statutory process claims. Moreover, claim 25 is believed to define a statutory product claim having particular code portions that are executable in a computer to perform the specified function. Hence, claims 25-38 are believed to recite statutory subject matter under 35 U.S.C. 101.

D. Rejections under 35 U.S.C. 112.

Claims 1-14 were rejected under 35 U.S.C. 112. This rejection is respectfully traversed. The Office action questions how one would produce a probabilistically unique identifier without dividing the data file (a.k.a. digital sequence) into a plurality of pieces. As set out in the specification, dividing the digital sequence into pieces is an optional feature of the invention that is not called for in claim 1.

A unique identifier can be produced by hashing, for example, as called for in claims 7-9, a checksum in claim 10, or equivalent techniques. These techniques can be applied to arbitrarily large files. Hence, the probabilistically unique identifier can be prepared from an arbitrarily large, undivided digital sequence. Moreover, if the digital sequence were relatively small further division of the sequence may not be practical.

The Office action further states that the probabilistically unique identifier can only compare with a previously stored identifier on the list. It is believed that this is implicit in the concept of a list, claims 1, 14 and 25 are amended in a manner that is believed to clarify this concern. Accordingly, it is respectfully requested that the rejections under 35 U.S.C. 112 be withdrawn.

Claims 1-24 were rejected under 35 U.S.C. 112, second paragraph, as omitting essential steps. As set out above, however, the act of “dividing a digital sequence...” is not a mandatory feature of the invention. Further, multiple methods of determining a probabilistically unique identifier are disclosed and

claims. Accordingly, it is believed unnecessarily limiting to require that the probabilistically unique identifier be a hash value. It is respectfully requested that the rejections under 35 U.S.C. 112 be withdrawn.

E. Double Patenting.

Claims 1-38 were rejected under the judicially created doctrine of Double Patenting.

Although the claims as presented are believed to be distinct with respect to U.S. Patent 6,704,730, a terminal disclaimer will be supplied together with the required fee upon indication of allowable subject matter. Accordingly, it is respectfully requested that the double patenting rejection be held in abeyance.

F. Rejections under 35 U.S.C. 102.

Claims 1 and 25 were rejected under 35 U.S.C. 102 based upon Williams. This rejection is respectfully traversed.

The cited portions of Williams (i.e., column 9, lines 1-20) make no mention of probabilistically unique identifiers or digital signatures. Perhaps the office action intended to cite Davis (U.S. Patent 6219423)? While claim 1 is believed to be distinct over both Williams and Davis, applicants are not in a position to set out distinguishing arguments until a rejection is actually stated, if that is the intention of the office. The Office action fails to state a proper rejection under 35 U.S.C. 102 for either claim 1 or claim 25.

G. Rejections under 35 U.S.C. 103.

Claims 2-38 were rejected under 35 U.S.C. 103 based upon Davis and Williams. This rejection is respectfully traversed.

Claims 2-38 call for, in varying language, maintaining a list of probabilistically unique identifiers based upon comparing the probabilistically unique identifier to a previously stored_list of identifiers and their corresponding digital sequences. Davis shows a system for digital signatures. As noted in the Office Action, Davis does not show activities involved in maintaining a list of

digital signatures. It is not clear why such a list would be used by Davis or how Davis could be modified to make us of such a list.

While the cited portion of Williams teaches the adding and removing of subblocks to/from a collection, it is not clear how this teaching in Williams would be combined with Davis to show or suggest that these subblocks are the same as the probabilistically unique identifiers called for in the instant claims. Moreover, the motivation to combine the references state in the office action (i.e., "for the purpose of reducing redundancy by increasing the efficiency of systems that store and communicate data") has no bearing on the Davis system. In the Davis system redundancy appears mandatory as each signatory transmits a uniquely encoded version of the same document to an arbiter. Eliminating redundancy would prevent the arbiter from knowing that everyone signed the same documents. Because the office action does not state sufficient motivation to support the combination it is respectfully requested that the rejection of claims 2-38 under 35 U.S.C. 103 be withdrawn.

While the instant claims are believed to distinguish over the relied on references, it is respectfully requested that the Examiner consider column 22 of the Williams reference in the section titled "A Low-Redundancy File System." This portion of Williams appears to be more relevant than the portions of Williams that were relied upon.

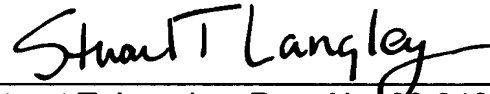
H. Conclusion.

The references that were cited but not relied upon are no more relevant than the references that were relied upon. In view of all of the above, the claims are now believed to be allowable and the case in condition for allowance which action is respectfully requested. Should the Examiner be of the opinion that a telephone conference would expedite the prosecution of this case, the Examiner is requested to contact Applicants' attorney at the telephone number listed below.

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Respectfully submitted,



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